Claude F. Meares, et al. Application No.: 09/671,953 Page 19

APPENDIX B PENDING CLAIMS

1	1. (Once amended) A mutant antibody comprising a reactive site not present in		
2	the wild-type of said antibody and a complementarity-determining region (CDR) that recognizes a		
3 ~	metal chelate or portions thereof, wherein said reactive site is in a position proximate to or within		
4	said complementarity-determining region.		
1	2. The mutant antibody according to claim 1, wherein said reactive site is a sid		
2	chain of a naturally occurring or non-naturally occurring amino acid.		
1	3. The mutant antibody according to claim 2, wherein said reactive site is the		
2	-SH group of cysteine.		
2	-SH group of cysteme.		
1	10. (Once amended) A polypeptide comprising a peptide sequence according to		
2	SEQ. ID NO.:5 (FIG. 12).		
1	11. A polypeptide comprising a peptide sequence according to SEQ. ID NO.: 7		
2	(FIG. 14).		
1	14. (Once amended) The mutant antibody according to claim 1, wherein said		
	mutant antibody is a mutant of CHA255.		
2	inutant antibody is a mutant of CITA233.		
1	15. The mutant antibody according to claim 14, wherein serine-95 of the light-		
2	chain is substituted by a cysteine residue.		
1	16. The mutant antibody according to claim 1, wherein said antibody is a		
2	bifunctional antibody further comprising a second complementarity-determining region that		
3	specifically binds to a cell-surface antigen.		
1	17. The mutant antibody according to claim 1, further comprising a targeting		
1	·		
2	moiety covalently attached thereto.		
1	18. The mutant antibody according to claim 17, having the structure:		
2	Ab-L-T		
3	wherein,		
4	Ab represents said antibody;		
-			

Claude F. Meares, et al. Application No.: 09/671,953

Page 20

5 L is a chemical bond or linking group; and T is said targeting moiety. 6 The mutant antibody according to claim 17, wherein said targeting moiety is 19. 1 an antibody that binds specifically to a cell surface antigen. 2 The mutant antibody according to claim 1, further comprising said metal 20. 1 chelate bound to said complementarity-determining region, wherein said chelate comprises a 2 reactive functional group of complementary reactivity to said reactive site of said antibody. 3 (Once amended) The mutant antibody according to claim 20, further 1 21. comprising a covalent bond formed by reaction of said reactive site of said antibody and said 2 reactive functional group of said chelate. 3 The mutant antibody according to claim 20, wherein said reactive site of said 22. 1 chelate is an acrylamido moiety. 2 The mutant antibody according to claim 1, wherein said metal chelate is a 23. 1 polyaminocarboxylate chelate of a metal ion selected from the group consisting of transition metal 2 3 ions and lanthanide ions. A pharmaceutical composition comprising the mutant antibody according to 1 24. claim 17, and a pharmaceutically acceptable carrier. 2 (Twice amended) A mutant antibody comprising a cysteine residue not 25. 1 present in the wild-type of said antibody and a complementarity-determining region that recognizes 2 a metal chelate or portions thereof, wherein said cysteine is in a position proximate to or within said 3 complementarity-determining region. 4 The antibody according to claim 25, wherein said antibody is a bifunctional 30. 1 antibody further comprising a second complementarity-determining region that specifically binds to 2 3 a cell-surface antigen. The mutant antibody according to claim 25, further comprising a targeting 1 31. moiety covalently attached thereto. 2

Claude F. Meares, et al. Application No.: 09/671,953 Page 21

1	32. The mutant antibody according to claim 31, having the structure:		
2.	Ab-L-T		
3	wherein,		
4	Ab represents said antibody;		
5	L is a chemical bond or linking group that may contain one or more functional		
6	groups; and		
7	T is said targeting moiety		
	33. The mutant antibody according to claim 31, wherein said targeting moiety is a		
I	The mutant antibody according to claim 31, wherein said targeting moiety is a		
2	member selected from the group consisting of antibodies and antibody fragments, each of which		
3	bind specifically to a cell surface antigen.		
1	34. The mutant antibody according to claim 25, further comprising said metal		
2	chelate bound to said complementarity-determining region, wherein said chelate comprises a		
3	reactive functional group of complementary reactivity to the -SH side-chain of said cysteine		
4	residue.		

Claude F. Meares, et al. Application No.: 09/671,953 Page 22

1	35.	The mutant antibody according to claim 34, further comprising a covalent	
2`	bond formed by reaction of the -SH side-chain of cysteine and said reactive functional group of said		
3	chelate.		
1	36.	The mutant antibody according to claim 35, wherein said reactive functional	
2	group of said chelate is an acrylamido moiety.		
1	37.	The mutant antibody according to claim 25, wherein said metal chelate is a	
2	polyaminocarboxylate chelate of a metal ion selected from the group consisting of transition metal		
3	ions and lanthanide ions.		
1	38.	A pharmaceutical composition comprising the mutant antibody according to	
2	claim 31, and a pharmaceutically acceptable carrier.		
1	42.	(New) A mutant antibody comprising a reactive site not present in the wild-	
2	type of said antibody	and a complementarity-determining region (CDR) that specifically binds a	
3	metal chelate, wherein said reactive site is in a position proximate to or within said complementarity		
4	determining region.		
1	43.	(New) A mutant antibody comprising a reactive site not present in the wild-	
2	type of said antibody	and a complementarity-determining region (CDR) that recognizes a metal	
3	chelate comprising a reactive group or portions thereof, wherein said reactive site is in a position		
4	proximate to or within said complementarity-determining region, and		
5	wherein said reactive group has complementary reactivity to said reactive site of said		
6	antibody.		

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